

## Abstract

A plurality of power sources (26) supply power to a plurality of loads (24) via a distribution network (20, 22). Voltage is sensed at one or more points (28) in the network to provide a closed loop for regulating current or power supplied by the power sources, thereby allowing for voltage drops due to resistance of the distribution network. The loads may be low voltage integrated circuit devices on a printed circuit board (10), the distribution network may comprise power and ground planes of the board, and the power sources may be switch mode power converters on the board and providing regulated output currents.